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# AVer Dome type Camera

## Installation Guide

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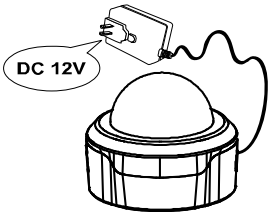
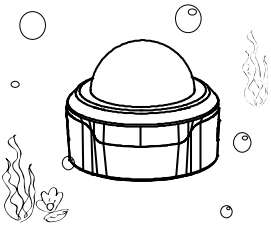
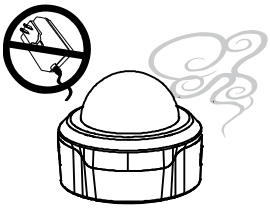
# Important Safeguard



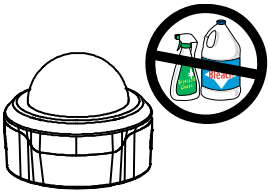

Do not use power supply with different voltage other than DC 12V / PoE.



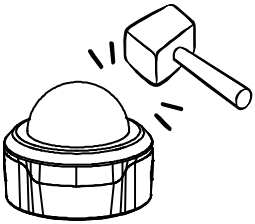
Do not submerge the unit in the water.



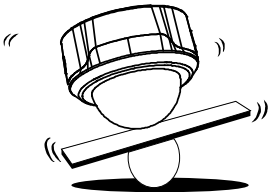
Unplug the power of this unit as soon as smoke or unusual odor is detected.



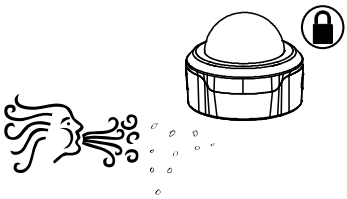
Unplug the power supply before cleaning. Use only a lens cleaning cloth and never use benzene, thinner, or other solvent for cleaning.



Do not attempt to service this unit by yourself. Always refer all servicing to qualified service personnel.



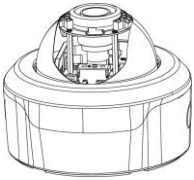
Do not place the unit in unsteady surface and also do not drop the unit.



Keep the IP camera housing close and prevent the dust from getting in the housing.

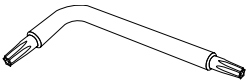
## Package Contents

The following items are included in the package.

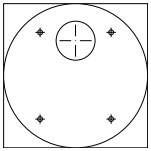


AVer Dome type Camera

Software & Manual CD

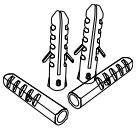


L-type Wrench



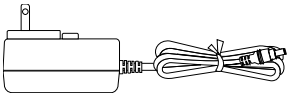
Alignment Sticker

4+1 Screws



4 Plastic Anchors

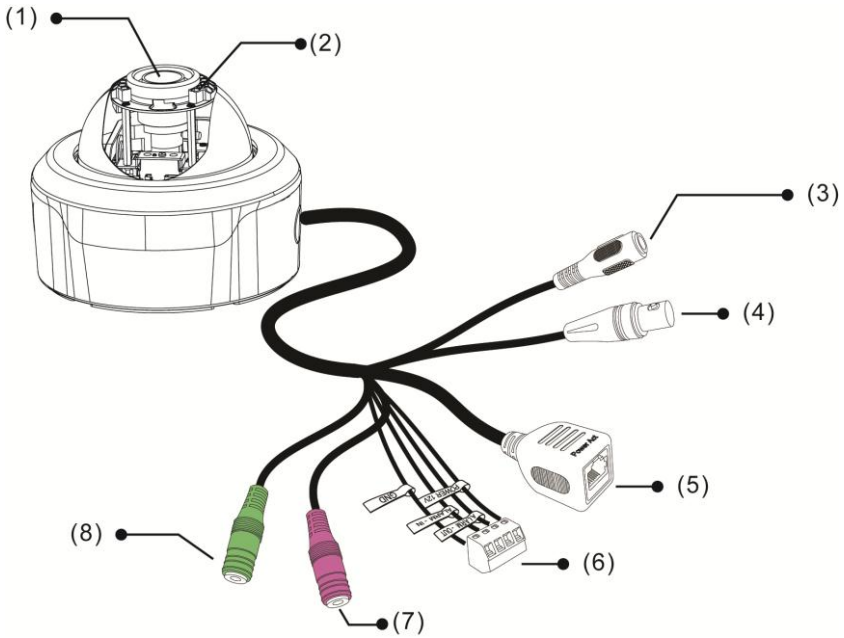
## Optional Accessories



Power Adapter (12V, 2A)

* The power adapter will vary depending on the standard power outlet of the country where it is sold. Depending on your package the power adapter maybe included.

# IP Camera Parts




| No. | Function |
|---|---|
| (1) | Camera Lens |
| (2) | Light Sensor |
| (3) | Power Jack |
| (4) | BNC Jack (Video Out) |
| (5) | RJ45 Ethernet Jack |
| (6) | I/O Terminal Block |
| (7) | Phone Jack (Audio In) |
| (8) | Phone Jack (Audio Out) |

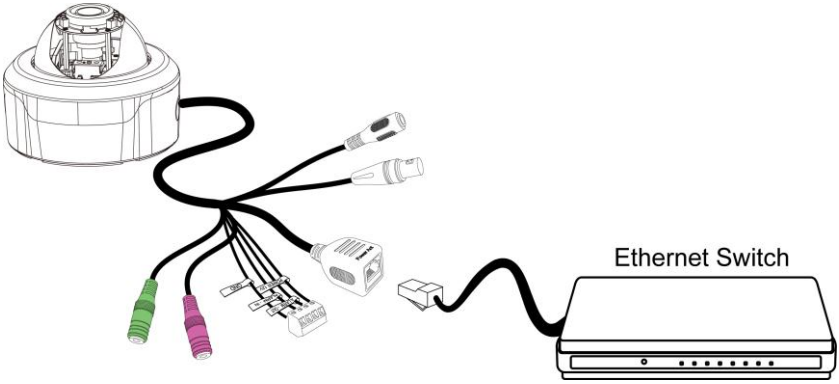
# IP Camera Installation

This section provides useful tips on how to adjust the IP camera to meet your needs.

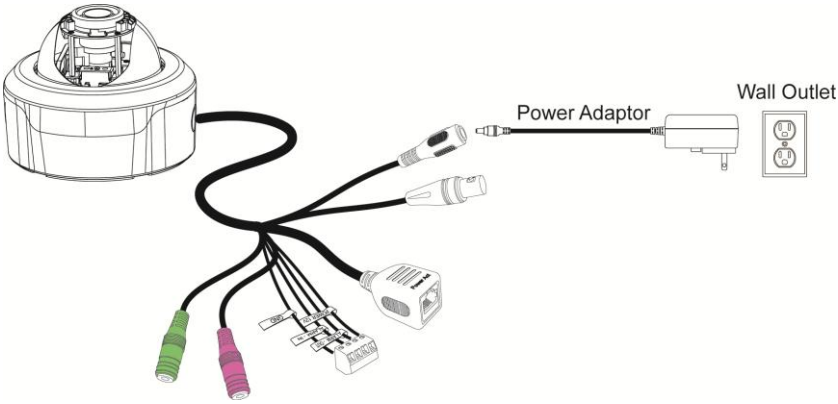
## Deploying Network

**Network Connection via Ethernet Switch**

Connect the RJ45 cable from the Ethernet switch to RJ45 Ethernet jack of camera



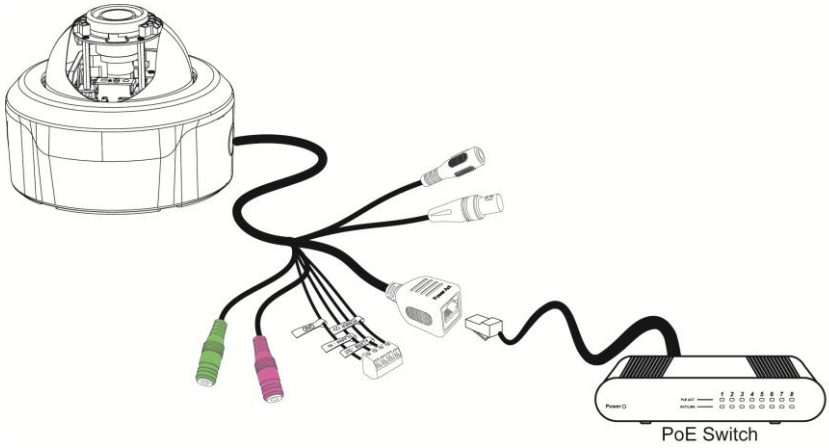

**Connect the power adapter to power jack of camera**



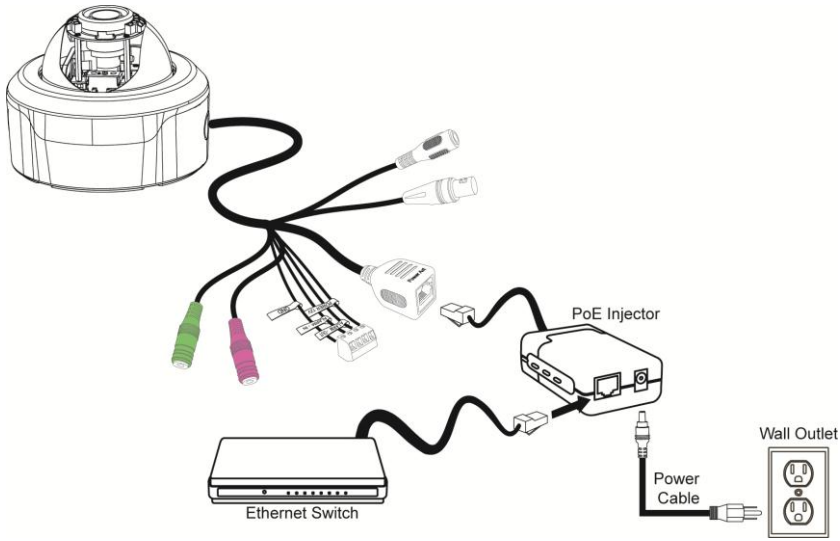
## Power over Ethernet Connection

AVer dome type camera fully complies with PoE standard. It allows you to use PoE enabled switch or PoE injector to transmit data and power thru single Ethernet cable.

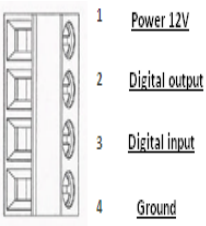
- **PoE Enabled Switch Connection Diagram**




- **PoE Injector Connection Diagram**



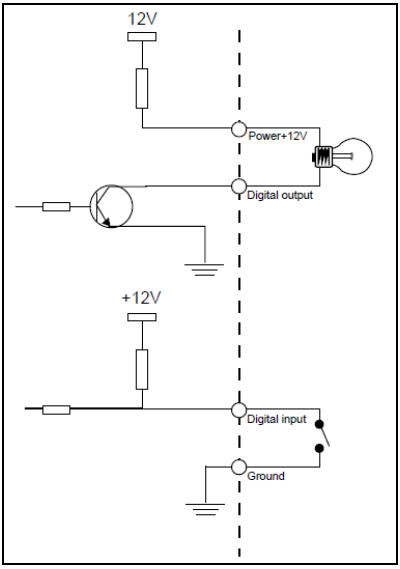
## Connecting External Devices to I/O Terminal Block




| No. | Function |
|---|---|
| (1) | Power 12V |
| (2) | Digital Output |
| (3) | Digital Input |
| (4) | Ground |

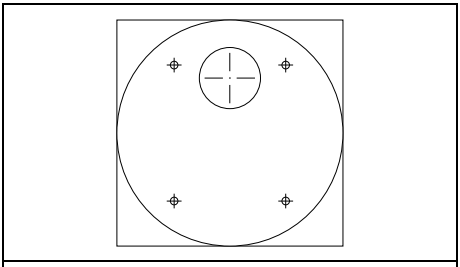
**[Note]** Maximum power output is 12V/100mA

## Internal Connection Diagram of DI/DO

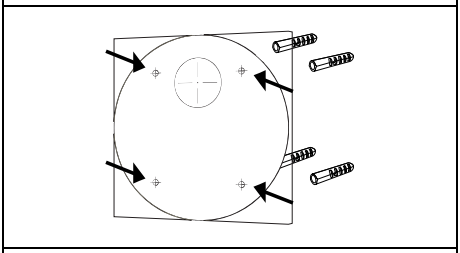


## Mounting the IP Camera

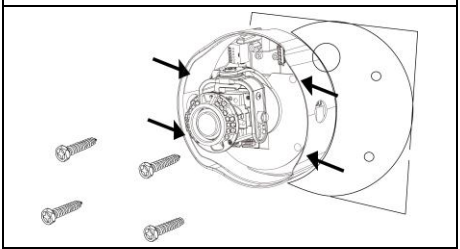
1. Place the sticker on the wall surface. Then spot the mark and drill the 5 holes indicated on the sticker. If you are going to run the wire through the lateral side, it's not necessary to drill through the big hole.



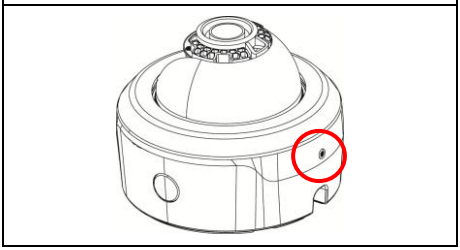
2. Insert the 4 plastic anchors in the wall.



3. Hook the IP Camera and use the hex socket cap bolt to secure the IP camera.



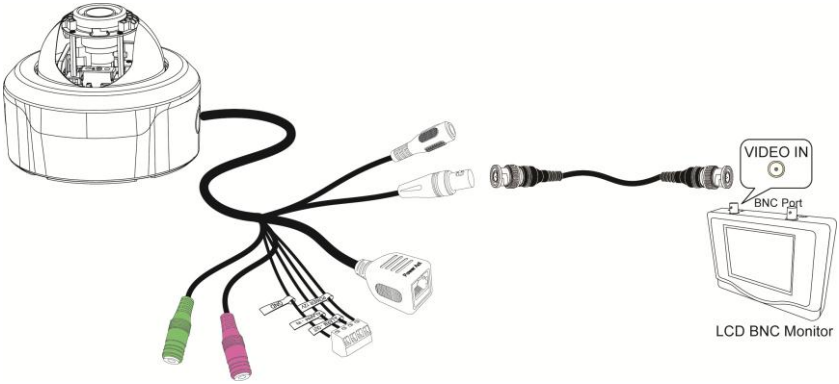
4. After adjusting the focus and zoom control, use the L-type wrench to secure the case of IP camera from being tampered.



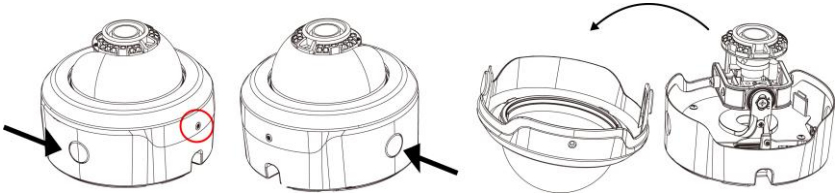
## Focusing the IP Camera with BNC Monitor

The IP camera is supported with BNC analog video out jack which allows you to connect an analog display devices such as an LCD BNC monitor for you to adjust the camera focus and zoom.

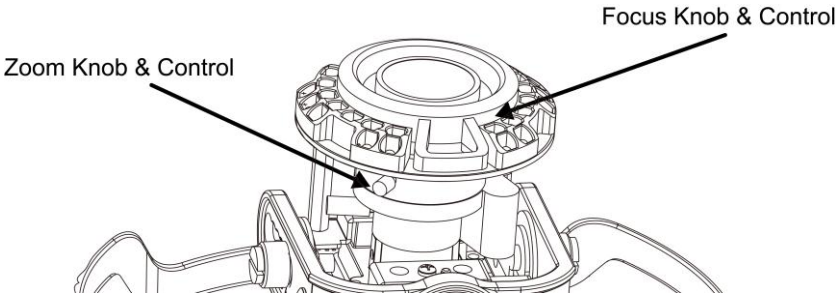
1. Connect the LCD BNC monitor to the BNC jack.




2. Loose the screw of case and press left and right side button to open the case.

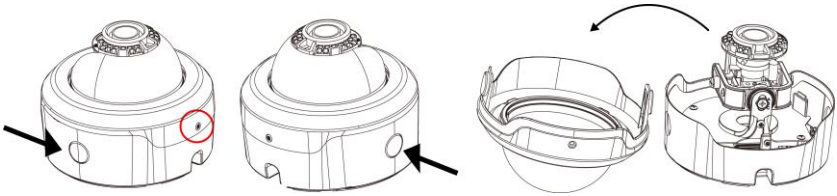


3. Slightly loosen the focus and zoom control knobs and adjust the focus and zoom range. Slightly tighten the focus and zoom knobs once you are done the adjustment.

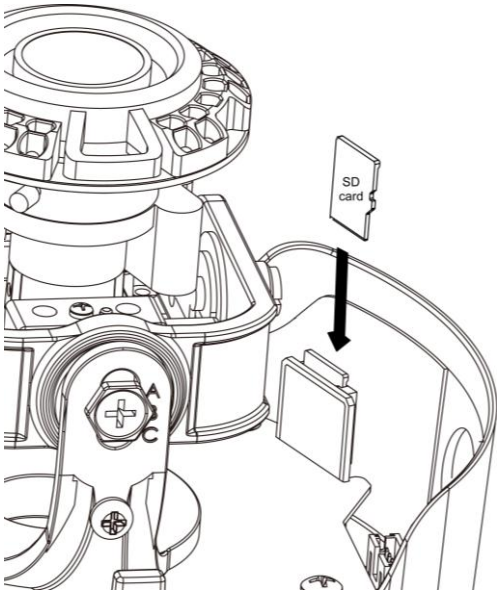


## Inserting microSD Card to System

1. Loose the screw of case and press left and right side button to open the case.



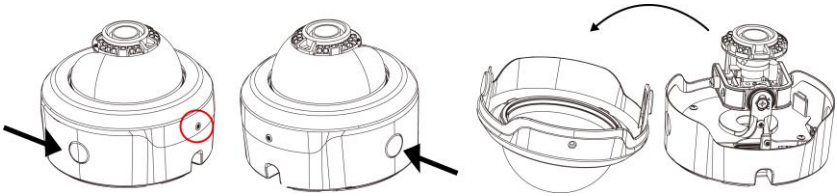
2. Insert microSD card



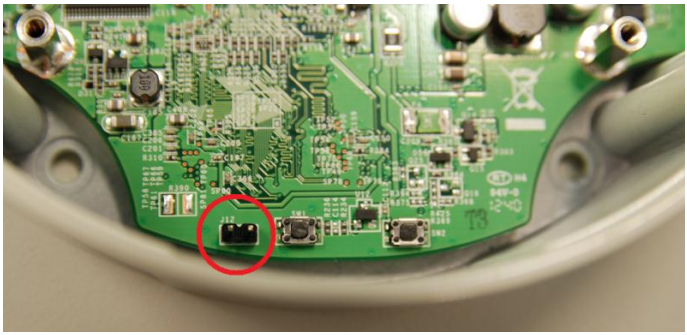

**[Note]** We recommend to use industrial grade microSD card (support operating temp from -40°C to 85°C) for extreme temperature condition.

# Resetting Hardware

1. Lose the screw of case and press left and right side button to open the top cover case.



2. Short PJ1 pins around 10 seconds.



**Warning!!**

**This will cause all the configuration settings back to factory default.**

# Technical Specifications

## ■ FD2020 (E)/FD2020-M (E)

| Model | FD2020 (E) | FD2020-M (E) |
|---|---|---|
| **Lens spec.** | **PTK-2M2812N14IR** | **CBC AGP3Z0312LMRP-E111T51** |
| Lens type | vari-focal Lens<br>(Board mount, M14) | vari-focal Lens<br>(Board mount, M19) |
| F/no | F1.4 | F/1.2 |
| Iris type | DC Iris | |
| Focal length | 2.8~12mm | f3~9mm |
| View Angle | H 81.4°(W)~29°(T)<br>V 50.1°(W)~18°(T) | H 83.3°(W)~28.2°(T)<br>V 51.5°(W)~18.2°(T) |
| MFZ support | N//A | Yes |
| **Camera image** | | |
| Min. illumination | 1 Lux in day mode (IR off)<br>0.15 Lux in night (IR off)<br>0 Lux in night mode (IR on) | 0.8 Lux in day mode (IR off)<br>0.1 Lux in night mode (IR off)<br>0 Lux in night mode (IR on) |
| Built-in LED | Yes | |
| IR distance | 30M | |
| Built-in mechanical ICR | Yes | |
| Auto IRIS | Yes | |
| **Video** | | |
| Compression | H.264/MPEG-4/MJPEG | |
| Max. resolution | 1920 x 1080 | |
| Frame rate | 1920 x 1080 @ 30fps | |
| H.264/MPEG-4<br>bit rate mode | VBR, 5 levels<br>CBR, 64/128/512/768Kbps & 1/2/3/4/6/8/10/12Mbps | |
| MJPEG quality | 5 levels | |
| Regional of Interest | Yes | |
| Smart Stream | Yes, 5 windows | |
| Image orientation | mirror, flip | |

| Model | FD2020 (E) | FD2020-M (E) |
|---|---|---|
| **Video** | | |
| Motion Detection zones | 3 | |
| Privacy mask areas | 3 | |
| BLC | Yes | |
| D-WDR | Yes | |
| De-noise | 2D/3D | |
| Day & night function | Auto/Manual/Schedule | |
| ePTZ | Yes | |
| Corridor Mode | Yes | |
| Cross Detection | Yes | |
| **Audio** | | |
| Encoder | G.711 (μ-law)/G.726 (bit rate 16K~64bps)/AAC audio compression | |
| Streaming | 2-ways audio | |
| **Network** | | |
| protocols | TCP/IP (IPv4/IPv6), HTTP, HTTPS, UPnP, SMTP, FTP, DHCP, NTP, DDNS, PPPoE, Samba, QoS, SNMP(V1/V2c/V3), 802.1X | |
| Ethernet | 10/100 Base-T, RJ45 connector | |
| ONVIF | V2.X (Profile S), conformance test V12.06 | |
| Security | Password protection/IP Filter | |
| Users | up to 10 users simultaneously | |
| **Event** | | |
| Profiles | 32 sets | |
| Triggers | Alarm Interval, Motion Detection Region, Digital Input, SD Card, Network | |
| Actions | Trigger: Digital Output, Alarm Audio<br>Send out video clip: FTP, NAS, SD card<br>Send out snapshot / log: FTP, NAS, SD card, mail | |

| Model | FD2020 (E) | FD2020-M (E) |
|---|---|---|
| **Interface** | | |
| Digital input/output | 1/1 | |
| BNC Video output | Yes | |
| Built-in storage option | Micro SDHC & SDXC card (64GB max.) | |
| External microphone input | Yes | |
| External Audio output | Yes | |
| **General** | | |
| Power supply | DC 12V(2A)/PoE | |
| Power consumption | **PoE (TYP.):**<br>6W (LED OFF)<br>9W (LED ON) | |
| | **DC-IN (TYP.):**<br>5.1W (LED OFF)<br>8.1W (LED ON) | |
| PoE | PoE Class 3 (IEEE802.3af) | |
| Dimensions | 144.6mm x 113.4mm($\phi$ x H) | |
| 3-axis bracket adjustment angle | Pan: 280°, Tilt: 30°~90°, Rotation:100° | |
| Net weight | 700g | |
| Temperature and humidity | 0°C~45°C, 20%~90% | |
| IP Rating | N/A | |
| **Software Requirement** | | |
| OS | Windows® XP/7/8 | |
| Browser | IE 8/9/10/11 | |
| Firmware remote upgrade | Yes (via HTTP) | |
| **Warranty** | | |
| Main body | 2 years | |
| Accessories | 1 year | |

## FCC NOTICE (Class B)

This device complies with Part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) this device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

**Federal Communications Commission Statement**

**NOTE-** This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates uses and can radiate radio frequency energy and, if not installed and used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular installation. If this equipment does cause harmful interference to radio or television reception, which can be determined by tuning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between the equipment and receiver.
- Connect the equipment into an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/television technician for help.

## European Community Compliance Statement (Class B)

This product is herewith confirmed to comply with the requirements set out in the Council Directives on the Approximation of the laws of the Member States relating to Electromagnetic Compatibility Directive 2004/108/EC

## COPYRIGHT

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## NOTICE

SPECIFICATIONS ARE SUBJECT TO CHANGE WITHOUT PRIOR NOTICE. THE INFORMATION CONTAINED HEREIN IS TO BE CONSIDERED FOR REFERENCE ONLY.

## WARNING

TO REDUCE RISK OF FIRE OR ELECTRIC SHOCK, DO NOT EXPOSE THIS APPLIANCE TO RAIN OR MOISTURE. WARRANTY VOID FOR ANY UNAUTHORIZED PRODUCT MODIFICATION.

THE MARK OF CROSSED-OUT WHEELED BIN INDICATES THAT THIS PRODUCT MUST NOT BE DISPOSED OF WITH YOUR OTHER HOUSEHOLD WASTE. INSTEAD, YOU NEED TO DISPOSE OF THE WASTE EQUIPMENT BY HANDING IT OVER TO A DESIGNATED COLLECTION POINT FOR THE RECYCLING OF WASTE ELECTRICAL AND ELECTRONIC EQUIPMENT. FOR MORE INFORMATION ABOUT WHERE TO DROP OFF YOUR WASTE EQUIPMENT FOR RECYCLING, PLEASE CONTACT YOUR HOUSEHOLD WASTE DISPOSAL SERVICE OR THE SHOP WHERE YOU PURCHASED THE PRODUCT.

## Limited Warranty

AVer Information, Inc. (“AVer”) warrants that the applicable product (“Product”) substantially conforms to AVer’s documentation for the product and that its manufacture and components are free of defects in material and workmanship under normal use. “You” as used in this agreement means you individually or the business entity on whose behalf you use or install the product, as applicable. This limited warranty extends only to You as the original purchaser. Except for the foregoing, the Product is provided “AS IS.” In no event does AVer warrant that You will be able to operate the Product without problems or interruptions, or that the Product is suitable for your purposes. Your exclusive remedy and the entire liability of AVer under this paragraph shall be, at AVer’s option, the repair or replacement of the Product with the same or a comparable product. This warranty does not apply to (a) any Product on which the serial number has been defaced, modified, or removed, or (b) cartons, cases, batteries, cabinets, tapes, or accessories used with this product. This warranty does not apply to any Product that has suffered damage, deterioration or malfunction due to (a) accident, abuse, misuse, neglect, fire, water, lightning, or other acts of nature, commercial or industrial use, unauthorized product modification or failure to follow instructions included with the Product, (b) misapplication of service by someone other than the manufacturer’s representative, (c) any shipment damages (such claims must be made with the carrier), or (d) any other causes that do not relate to a Product defect. The Warranty Period of any repaired or replaced Product shall be the longer of (a) the original Warranty Period or (b) thirty (30) days from the date of delivery of the repaired or replaced product.

## Limitations of Warranty

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